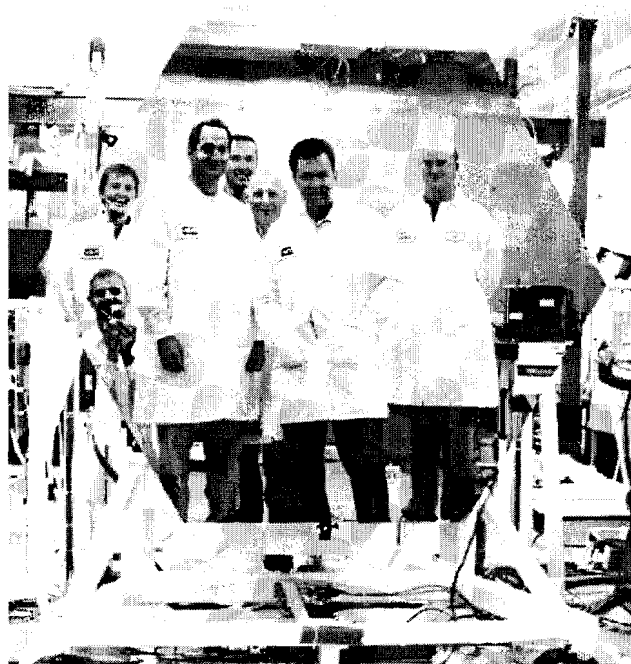


The James Webb Space Telescope Primary Mirror Engineering Design Unit (EDU) recently demonstrated the final manufacturing process at L-3-SSG/Tinsley in Richmond, California. Shown in the picture below, the EDU is a prototype 1.4 meter diameter Beryllium mirror that is identical to the 18 flight mirror segments and is used to check out all mirror manufacturing processes prior to the actual flight mirror processing. This recent result gives confidence that all manufacturing processes are in place to figure the 18 flight mirrors. Lessons learned from the EDU have been applied to the flight mirrors improving the performance and processing time and all 18 flight mirrors are well along in their processing at L3-SSG/Tinsley. As a result of completing the final manufacturing demonstration, the EDU mirror was sent to Ball Aerospace in Boulder, Colorado where it is now undergoing integration with the hexapod mount assembly and optical testing checkout. After integration to mount assemblies, flight mirrors will be sent for cryogenic (50 degrees Kelvin) optical testing where the cryogenic distortions will be measured. After cryogenic testing, mirrors will eventually be returned to Tinsley for final cryogenic polishing. During final cryogenic polishing, the inverse of the measured cryogenic distortions will be polished into the mirror to assure the mirror works at it's cryogenic operating temperature. Once cryogenic polishing is completed to final specifications, the mirror will be coated and sent for final cryogenic testing.



Engineering Design Unit Primary Mirror Segment

The people shown from left to right are:

Chris Alongi (L3-SSG/Tinsley), Amber Zertuche (L3-SSG/Tinsley), Scott Texter (NGST), Patrick Johnson (L3-SSG/Tinsley), Michael Hirsch (NGST), Lee Feinberg (NASA GSFC), Ben Gallagher (Ball Aerospace).